REMARKS

Further to the Amendment filed on September 30, 2004, Applicant respectfully submits the foregoing amendments and the following remarks in response to the Office Action dated April 30, 2004. It is respectfully requested that the Examiner consider and enter the instant Supplemental Amendment. In view of the amendments and remarks presented herein and in the Amendment filed on September 30, 2004, favorable reconsideration and withdrawal of the rejections set forth in the Office Action are respectfully requested.

Claims 1-40 and 43-58 are pending. Claims 57 and 58 have been amended to correct typographical and clerical errors. Claims 1, 21, 43 and 55-58 are in independent form.

In the Amendment filed on September 30, 2004, Applicant presented arguments to the effect that the independent claims herein are patentable over the art cited in the Office Action. In the instant Supplemental Amendment, Applicant respectfully presents additional arguments to the same effect.

Independent claim 1 recites, *inter alia*, a memory for storing a predetermined function which gives, for a given set of audio signal values, a probability density for parameters of a predetermined speech model which is assumed to have generated the set of audio signal values, the probability density defining, for a given set of model parameter values, the probability that the predetermined speech model has those parameter values, given that the speech model is assumed to have generated the set of audio signal values. The Office Action compares this stored function to the signal probability density functions (PDFs) of *Sewall et al.* shown in Figure 5 and described in column 13, lines 13 to 37. However, these probability density functions and

their use as described by *Sewall et al.* are totally different from the stored function and its use as recited in Claim 1.

Specifically, Claim 1 further recites means for applying the set of received audio signal values to the stored function to give the recited probability density. This is because it is only after the signal values have been applied that the function gives the probability density for the parameters. In contrast, in *Sewall et al.*, the signal values are first processed to generate the parameter values representative of the characteristics of the data signals (i.e., the autocorrelation parameters and the second order moments) and then those parameter values are applied to the stored PDFs (one PDF for each class), which output, as a result, the probability that the data signals belong to the respective class.

To further elaborate, with regard to the claimed means for applying, the Office Action refers to column 15, lines 6 to 25 of *Sewall et al.*, which portion relates to the embodiment shown in Figure 24. In that embodiment, the normalized discriminant variables obtained from the autocorrelation sub-system and the central second order moment sub-system are used by the decision sub-system 38 to determine the value (V_c) of the discriminant function for each class c. These values are then applied to the respective probability density functions stored in the database 40.

It is clear, therefore, first, that *Sewall et al.* does not apply the set of received audio signal values to the stored function as recited in Claim 1. Second, it is also clear, therefore, that the stored function of Claim 1 is totally different from the probability density functions stored in the database 40 of *Sewall et al.*

Furthermore, since *Sewall et al.* teaches stored functions that are different from the stored function of Claim 1, that document is not seen to suggest the claimed means for processing the function with the set of received audio signal values applied to obtain the values of the parameters. In particular, once *Sewall et al.* has applied the value (V_c) of the discriminant function to the respective probability density function, the result is a single probability value. Therefore, it is not possible to process the function to obtain values of the parameters that are representative of the input audio signal, as recited in Claim 1.

Applicant therefore submits that *Sewall et al.* does not teach or suggest an apparatus according to Claim 1 for at least the reasons set forth above and the reasons set forth in the Amendment filed on September 30, 2004. Applicant submits that the other independent claims herein are not taught or suggested by *Sewall et al.* for at least the same reasons as pertain to independent Claim 1.

Applicant further submits that none of the other cited art, taken alone or in combination, compensates for the deficiencies of *Sewall et al.* with respect to the independent claims.

Accordingly, Applicant submits that the independent claims herein are patentable over the cited art.

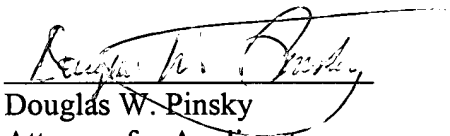
A review of the other art of record has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as references against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims are each dependent from one or another of the independent claims and are therefore believed patentable for at least the same reasons as pertain to the independent claims. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration, withdrawal of the §§ 102 and 103 rejections, and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



Douglas W. Pinsky
Attorney for Applicant
Registration No. 46,994

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200
DWP/tmc

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